



PERMIT APPLICATION REVIEW SUMMARY

NH Department of Environmental Services
Air Resources Division
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Facility:	Augusta Fiberglass Coatings Inc.	Engineer:	PRN
Location:	97 River Road, Bow		
AFS #:	3301390543	Application #:	08-0473
Date:	February 20, 2009	Page 1 of 3	

PROJECT DESCRIPTION

Augusta Fiberglass Coatings, Inc. (Augusta), headquartered in Blackville, South Carolina, has submitted an application for a permit to construct a temporary facility to be located on at 97 River Road in Bow to produce fiberglass reinforced plastic stack liner.

FACILITY DESCRIPTION/PERMIT HISTORY

Augusta will produce a fiberglass reinforced plastic (FRP) liner. The stack liner will be manufactured through a non-continuous progression of winding, chopping, and hand lay-up process involving fiberglass strand and a styrene-based resin (a full description of the process can be found in the permit application).

PROCESS/DEVICE DESCRIPTION

<u>EU ID</u>	<u>Device/Process</u>	<u>Description</u>	
NA	Propane space heater	4.5 MMBtu/hr heater; used for comfort heating in the work space	
EU01	Mechanical non-atomized spray gun	150 pounds resin per hour maximum design capacity	The fumes from the FRP stack liner production process will exhaust through a 5ft ID stack at flow rate of approximately 12,000 acfm.
	Filament winding	215 pounds resin per hour maximum design capacity	
	Manual hand lay-up	NA	
EU02	Resin storage tank	10,000 gallon above ground storage tank for the storage of resin for the process	

POLLUTION CONTROL EQUIPMENT

None

EMISSION CALCULATIONS

The emission calculations submitted with the permit application were reviewed and found to be acceptable for VOC and HAP emissions. Total estimated actual HAP emissions from the production of **one** FRP stack liner would be 4.5 tpy, below the major source threshold. Based on the maximum design capacities and 5400 hours of operation per year, the potential HAP emissions are 95 tpy. Permit conditions will limit the amount of resin the facility can use to limit their potential to synthetic minor status.

The facility did not assess Env-A 1400 compliance of methyl ethyl ketone (CAS 78-93-3) or hydrogen peroxide (CAS 7722-84-1) found in the catalyst (HI-POINT 90).¹ An RTAP assessment was not necessary for H₂O₂ since this chemical is not volatile. Although the catalyst is mostly consumed during the reaction and curing process, compliance was assessed assuming 100% emissions of MEK, and based on the proposed actual annual usage of resin.

RTAP – MEK

$$\frac{2,300\text{lb} / \text{yr}}{365\text{days} / \text{yr}} \times \frac{1\% \text{MEK}}{100} = 0.063\text{lb} \text{ MEK} / \text{day} \quad \text{De minimis} = 39 \text{ lb/day} - \text{PASS}$$

$$2,300\text{lb} / \text{yr} \times \frac{1\% \text{MEK}}{100} = 23\text{lb} \text{ MEK} / \text{yr} \quad \text{De minimis} = 14,353 \text{ lb/yr} - \text{PASS}$$

MODELING

No modeling was required

EMISSION TESTING

No emission testing will be required

¹ Annual use rate of the catalyst is from the permit application Attachment B page 3 of 7.

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COMPLIANCE STATUS

Site Visits/Inspections

NA – New source

Reports

NA – new source

Fees

Augusta submitted a permit application fee of \$2,500; this is over the fee required by Env-A 702.01 by \$500.

REVIEW OF REGULATIONS

State Regulations

Env-A 600 – Permitting (effective 6-08-06)

- 607.01(a) – **NO** – propane fired space heater <10MMBtu/hr;
- 607.01(h) – **NO** – the capacity of the planned aboveground storage tank will be less than 40,000 gallons;
- 607.01(n) – **YES** – without restrictions, the facility will have the potential to emit > 50 tpy of VOC, but resin use restrictions will keep them below the major source threshold for synthetic minor status;
- 607.01(v) – **NO** – based on the information provided, the facility will be in compliance with Env-A 1400;
- 607.01(w) – **YES** – the proposed facility will be located within the property boundary of a major source of HAP;

Env- A 1200 – Prevention, Abatement, and Control of Stationary Source Air Pollution (effective 2-26-05)

VOC RACT

- 1204.48 – **NO** – without restrictions, the combined TPE of the processes could exceed 50 tpy; the proposed maximum production rate assumed by the facility to produce one stack liner will be placed into the permit thereby limiting their potential to < 10 tpy; this is less than the major source threshold, and also less than the major modification threshold under NSR;

Env-A 1400 – Regulated Toxic Air Pollutants (effective 11-09-07)

- 1403.01 – **NO** – a permit is not required to limit RTAPs; compliance was demonstrated based on in-stack concentration method;

Federal Regulations

40 CFR Part 60 subpart Kb – Standards of Performance for VOC Liquid Storage Vessels

- **NO** – applies to storage tanks with capacities $\geq 19,812$ gallons; storage tank capacity is 10,000 gallons;

40 CFR Part 61

- **NO** applicable devices/processes;

40 CFR Part 63 subpart WWWW Reinforced Plastic Composites Production

- §63.5785(a) – **YES** – a facility is subject to the rule, “if you own or operate a reinforced plastic composites production facility that is located at a major source of HAP emissions.” The proposed new process will be subject to the NESHAP subpart WWWW because PSNH (on whose property Augusta will be located) is a major source of HAP emissions. Applicability was determined based on the aggregate emissions from both sources.

40 CFR Part 70

- Resin use restrictions in the permit will limit Augusta’s potential HAP emissions to below the major source threshold, making the proposed new source a synthetic minor - area source. The proposed source is located on the property of a major source required to obtain a title V permit. Also, since Augusta is subject to Part 63 subpart WWWW, they will also be subject to Part 70.

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SUMMARY AND CONCLUSIONS

A Temporary Permit for Augusta has been drafted for public review and comment. The permit includes all applicable federal and state air pollution control requirements.

Augusta has been issued a separate temporary construction permit based on US EPA guidance for military installations². This guidance states that the permitting authority, has the discretion to issue more than one title V permit to cover all stationary sources that are subject to title V, provided that; "the collection of permits assures that all applicable requirements would be met that otherwise would be required under a single permit for each major source."² At the time of permit renewal, Augusta will be required to apply for a title V operating permit.

Pursuant to this determination, DES has accepted the permit application from Augusta signed by the president [the responsible official] in accordance with the requirements of 40 CFR 70.2.

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² U.S EPA Memorandum from John S. Seitz, Director of the Office of Air Quality Planning and Standards - "Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)". August 2, 1996.